

 from that of the ~~substrate, and where~~ the difference in general molecular property-based binding affinity is a result of the enzyme-catalyzed reaction or series of ~~enzyme-catalyzed reactions.~~

The amendments to claim 1 incorporate the limitations of original claim 2 into claim 1, and are supported by original claim 2. Original claim 2 has been cancelled. Claims 4 and 8, which formerly depended from claim 2, have been amended to depend from claim 1.

Applicants have not added new matter by this amendment.

REMARKS

With the entry of the claims in the amendment of October 25, 2000 and in this amendment, claims 1, 3-10, 19, and 29-46 are pending. Claims 29-46 are identical to the claims of the Kasila reference (U.S. Patent No. 5,972,595) cited against the instant application, and were copied to preserve Applicant's rights under 35 U.S.C. § 135(b).

Election/Restriction

The Applicants thank the Examiner for the rejoinder of the species in Subgroup 1.

Sequence Compliance

A sequence listing in compliance with 37 C.F.R. § 1.181-1.185 was filed in this application on July 25, 2000.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1 and 2 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the use of the word "generally" in claim 1, and the use of the terminology "distinct from" in claim 2, was objected to.

The word "generally" is used in its ordinary dictionary sense, of "in disregard of specific instances and with regard to an overall picture." (Merriam-Webster's Collegiate Dictionary, Tenth Edition). In the context of the claim, in the "overall picture," the molecular species that is

adsorbed to the scintillating material is considered to be causing the scintillation. However, a very small fraction of the species which are not adsorbed may also cause scintillation. In one embodiment, consider the situation where the sample is an aqueous solution containing two molecular species in contact with a scintillating material, and one molecular species is adsorbed to the scintillating material, while the other molecular species remains in solution. When scintillation is observed, one would say, in general terms, that the adsorbed molecules are causing scintillation. However, the species in solution will, due to random molecular motion, occasionally move close enough to the scintillating material to cause a very small amount of scintillation (e.g., if a molecule in solution collides with the scintillating material at about the same time the molecule emits radiation). In a very specific instance, then, some minor amount of scintillation will be due to the species in solution. But in the “overall picture,” the scintillation is due to the adsorbed molecules, while the scintillation due to the molecules in solution is considered “noise.” The use of the word “generally” is thus meant to refer to the “overall picture” of the scintillation due to the adsorbed species, in disregard of the “specific instance” of the minor amount of scintillation caused by the non-adsorbed species (which “generally” does not stimulate the scintillating material, although in a few specific instances it might).

Similarly, “distinct” is also used in the sense of its ordinary dictionary definition (“distinguishable to the eye or mind as discrete: separate;” Merriam-Webster’s Collegiate Dictionary, Tenth Edition). The use of “distinct” in the phrase “...at least one of said molecular species has a presence of, an absence of, or a degree of general molecular property-based binding interaction with the scintillating material distinct from the remainder of the molecular species...” simply means that one can draw a distinction, or is able to distinguish, between the presence, absence, or degree of the property between the “at least one of said molecular species” and “the remainder of the molecular species.” Thus, the claims encompass any situation where one can draw a distinction, or is able to distinguish, a presence, absence, or degree of general molecular property-based binding interaction between at least one of the molecular species and the remainder of the species. The fact that these distinctions may be relative to the molecules involved does not render the claim indefinite, as long as the distinction in interaction with the scintillating material can be drawn.

Accordingly, Applicants believe that the terms “generally” and “distinct” do not render the claims indefinite, and withdrawal of this rejection is respectfully requested.

Rejections Under 35 U.S.C. § 102

Claims 1, 3, 5, 6 and 7 are rejected under 35 U.S.C. § 102(b) as being anticipated by Schlenoff (U.S. Patent No. 5,466,930; Ref. No. 8 on PTO-1449).

Amended claim 1 now recites a method for analyzing a sample with at least two molecular species, where the presence of, absence of, or degree of general molecular property-based binding interaction with the scintillating material of one or more of the molecular species is distinct from the remainder of the molecular species. The Schlenoff reference does not describe any such method. Rather, the Schlenoff reference is directed only to a method for determining whether a single type of molecular species--radioactive ions--are present in the solution. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 1-10 and 19 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kasila et al (U.S. Patent No. 5,972,575).

The declaration under 37 C.F.R. § 1.131(a) submitted by Dr. Zhengyu Yuan and Ms. Zhong-Xiao Chen, and its accompanying Exhibit A, establish that the instant invention was reduced to practice prior to the December 19, 1997 filing date of the U.S. provisional patent application priority document of the Kasila patent. Accordingly, withdrawal of this rejection is also respectfully requested.

CONCLUSION

Applicants submit that all issues raised in the Office Action (Sequence Compliance; Rejections Under 35 U.S.C. § 112, Second Paragraph; and Rejections Under 35 U.S.C. § 102(b) and 35 U.S.C. § 102(e)) have been resolved. Reconsideration and allowance of the claims, as amended, is earnestly solicited. If the Examiner believes that a telephone conference would help to resolve any issues in this application, she is invited to contact the undersigned agent for the Applicants at (213) 892-5615.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 342312000600. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

Dated: November 20, 2000

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